

WeatherFAST



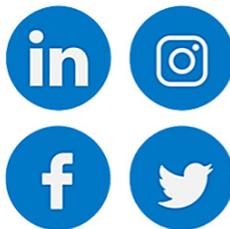
Bespoke Gutter Lining Systems



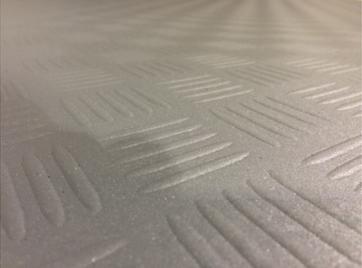
www.weatherfast.co.uk



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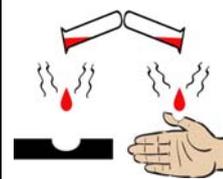
Product Information

| | |
|---|---|
|  | <h3>WeatherFAST Fatra PVC Laminated Gutter Membrane</h3> <p>High quality WeatherFAST/Fatra 333L PVC new improved safer tread pattern Factory laminated onto prime quality galvanised steel substrate designed primarily for use for commercial & industrial gutter systems</p> <p>Use as a slip resistant walkway new safer tread pattern Ideal for the demarcation of maintenance and walkway routes</p> |
|  | <h3>Size Information and Weights</h3> <p>1000 mm x 3075 mm 30 sheets per 1 ton pallet 1250 mm x 3075 mm 25 sheets per 1 ton pallet 1500 mm x 3075 mm 20 sheets per 1 ton pallet Special lengths laminated to order within 48 hours to you</p> |
|  | <h3>Available in Various Gauges</h3> <p>WeatherFAST/Fatra 333L PVC Laminated to Steel is Available in Various Gauges</p> <p>1.2/1.2 = 1.2 mm WeatherFAST/Fatra 333L PVC laminated to 1.2 mm galvanised steel 1.2/0.6 = 1.2 mm WeatherFAST/Fatra 333L PVC laminated to 0.6 mm galvanised steel</p> |
|  | <h3>Fabricator/Site Advantages</h3> <p>Latest WeatherFAST/Fatra 333L improves tread safety pattern Integral single weld end lap detail Reduced leak potential Reduced labour costs Available from stock next day delivered</p> |

COSHH ASSESSMENT WeatherFAST/Fatra 333L

| | |
|--|---|
| 1. HAZARDOUS SUBSTANCE PVC-P un-reinforced membrane with anti-slip texture. Note: WeatherFAST/Fatra 333L is not classified as a dangerous substance | MANUFACTURER / NAME WeatherFAST/Fatra 333L Waterproofing Membrane |
|--|---|

| | | |
|---|--|--------------------------------|
| 2. PERSONS EXPOSED | | |
| OPERATIVE <input checked="" type="checkbox"/> | SUPERVISOR <input checked="" type="checkbox"/> | OTHER <input type="checkbox"/> |

| | | | | | | | | | |
|--|-------------------------------------|--|--------------------------|--|-------------------------------------|---|-------------------------------------|--|-------------------------------------|
| 3. HAZARDOUS NATURE OF SUBSTANCE | | | | | | | | | |
|  | |  | |  | |  | |  | |
| FLAMMABLE | | IRRITANT | | TOXIC | | HARMFUL | | CORROSIVE | |
| YES | NO | YES | NO | YES | NO | YES | NO | YES | NO |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

| |
|--|
| 4. LOCATIONS AND PROCEDURES WHERE EXPOSURE MAY ARISE |
| Loading, unloading, cutting to size and fixing to flat roofs |

| | |
|-------------------------------------|--|
| 5. CONTROL MEASURES REQUIRED | |
| Control measure | Type |
| Exhaust Ventilation | <input type="checkbox"/> |
| Local Ventilation | <input type="checkbox"/> |
| Respirators (Type) | <input type="checkbox"/> |
| Eye Protection (Type) | <input type="checkbox"/> |
| Gloves (Type) | <input checked="" type="checkbox"/> Recommended when handling material |
| Aprons | <input type="checkbox"/> |
| Barrier Cream | <input type="checkbox"/> |

| 6. EXPOSURE DURATION | | | | | | | | | |
|----------------------|--------------------------|-----------|--------------------------|-----------|--------------------------|-----------|-------------------------------------|-----------|--------------------------|
| 0-2 hours | <input type="checkbox"/> | 2-4 hours | <input type="checkbox"/> | 4-6 hours | <input type="checkbox"/> | 6-8 hours | <input checked="" type="checkbox"/> | 8 hours + | <input type="checkbox"/> |

| 7. HEALTH RISKS | | | | | |
|---|--------------------------|-------------|--------------------------|-----------------|--------------------------|
| Inhalation | <input type="checkbox"/> | Ingestion | <input type="checkbox"/> | Skin Absorption | <input type="checkbox"/> |
| Skin Contact | <input type="checkbox"/> | Eye Contact | <input type="checkbox"/> | | |
| <i>No health risks have been identified</i> | | | | | |

| 8. ADDITIONAL MEASURES REQUIRED |
|---------------------------------|
| None |

| 9. SPECIAL PRECAUTIONS | |
|------------------------|--|
| Stacking | WeatherFAST/Fatra 333L comes in the form of rolls, which are laid on wooden pallets and fixed by a packing film. Care to be taken when cutting banding. |
| Storage | The recommended storage temperature is from -5 °C to +30 °C |
| Handling | Refer to separate Manual Handling Assessment |
| Disposal | Place in skip for transportation to licensed tip – not hazardous waster |
| Fire Fighting | For large fires, fire fighters should wear full emergency protective equipment including self-contained breathing apparatus. Toxic fumes will be produced if burnt |

| 10. EMERGENCY PROCEDURES REQUIRED | |
|---|-------------|
| <i>(Include First Aid Arrangements)</i> | |
| None | |
| Signed | Date |

WeatherFAST/Fatra 333L Slip-Resistant Membrane

Product Description

WeatherFAST/Fatra 333L is a high performance PVC-P roof waterproofing membrane, designed for use as a Slip-Resistant walkway. The membrane has a textured surface and is ideal for the demarcation of maintenance routes and should be installed in a contrasting colour to the main field area.

WeatherFAST/Fatra 333L is accredited with the environmental standard ISO 14001 and manufactured to DIN 16726 & DIN 16734.



Dark Grey Membrane, RAL 7012



Light Grey Membrane, RAL 7040

When installing over non-rigid insulation (i.e. Mineral fibre), steel spreader plates are required to avoid compression of the insulation. Fatrafol pre-laminated WeatherFAST/Fatra 333L Slip-Resistant membrane and spreader plates are recommended, which are available made to measure to eliminate the need for on-site cutting.

WeatherFAST/Fatra 333L is certified to:

- ISO 14001 Environmental management accredited. Registration no. 280241
- ISO 9001 Quality Management accredited. Registration no. 200701
- DIN 16734 Man-made fibre reinforced plasticised polyvinyl chloride (PVC-P)
- DIN 16726 Plastic roofing and waterproofing sheet; testing.
- C&Mac249; SN 64 6223 Plasticised polyvinylchloride (PVC-P) films for construction of barriers to liquid.

Technical Data

| WeatherFAST/Fatra 333L Slip-Resistant Membrane | | |
|---|---------------------|------------------------|
| Visible Defects | EN 1850-2 | Complies |
| Straightness | EN 1848-2 | ≤ 5mm |
| Flatness | EN 1848-2 | ≤ 5mm |
| Water Tightness to Liquid State, 10 Kpa * | EN 1928 Method B | Complies |
| Reaction to Fire | EN 13501-1 | Class E |
| Characteristics of Roof Exposed to External Fire | ENV 1187 | B _{ROOF} (t1) |
| Joint Peel Resistance | EN 12316-2 | ≥ 250N/50mm |
| Joint Shear Resistance | EN 12317-2 | ≥ 650N/50mm |
| Tensile Strength | EN 12311-2 | ≥ 8 MPa |
| Elongation at Break | Method B | ≥ 150% |
| Impact Resistance at 23 °C (h = 300mm) | EN 12691 | Ø10mm |
| Impact Resistance at -10 °C (h = 300mm) | EN 12691 | Ø10mm |
| Resistance to Static Load | EN 12730 Method B | Complies 20kg |
| Tear Resistance | EN 12310-2 | ≥ 130N |
| Dimensional Stability | EN 1107-2 | Max ±0.2% |
| Foldability at Low Temperature | EN 495-5 | ≤ -35 °C |
| Exposure to UV Radiation, High Temperature and Water | EN 1297 | Complies, Grade 0 |
| Water Vapour Properties | EN 1931 | 10500 ± 2500 |

* The sample also complies at a pressure of 60kPa

MATERIAL SAFETY DATA SHEET

United Kingdom - MSDS 03



Zinc-coated steel coils and sheets

1. IDENTIFICATION OF THE PRODUCT AND MANUFACTURERS

Identification of the product

Zinc-coated steel coils and sheets. Commercially these products are usually named in accordance with the national or international standards, or also as galvanised, galvanized, galfan coated steel.

| | |
|---|---|
| Name of manufacturer | Arcelor 19, avenue de la Liberté LU- 2930 Luxembourg |
| Responsible for placing on the market | Arcelor FCS Commercial 19, avenue de la Liberté LU- 2930 Luxembourg Tel.: +352 47 92 43 06 e-mail: fcs-msds@arcelor.com |
| Department supplying safety informations | Arcelor - Florange plant Pavillon Médical 17, avenue des Tilleuls FR- 57191 Florange Cedex Fax: +33 3 82 51 60 20 |

2. COMPOSITION AND INFORMATION ON INGREDIENTS

Description

Non-alloyed to low-alloyed steel coils and sheets, single or double side electro-coated galvanised with a pure zinc layer, or double side hot dip galvanised with a pure zinc, or with an iron, or with an aluminium alloyed zinc layer. The zinc layer may possibly be coated with either a phosphate layer, a chromate layer, an anti-finger-print layer (AFP), an oil layer, or a combination of some of those layers. The zinc coated steel products may be protected by a packaging.

Composition

- Steel substrate
Depending on the grade, the steel may contain a total concentration in alloying and residual elements up to 3.0%, and an individual concentration in those elements up to 2.0%.
- Zinc layer
Depending on the grade, the zinc layer may be pure zinc, or alloyed with iron up to 15%, or alloyed with aluminium up to 6%. The zinc layer weight lies for each coated side up to 250 g/m².
- Phosphate, chromate and AFP layers
Phosphate, chromate and AFP with layer weight for each side going up to respectively 3 g/m², 0.05 g/m² and 1.5 g/m² may be applied on the zinc surface.

3. HAZARD CLASSIFICATION OF PRODUCT

Under normal circumstances galvanised steel products in massive form do not present any hazards. Dust/fume/smoke may be generated during mechanical and thermal processes as cutting, drawing, grinding, burning, welding, brazing,... . Inhalation of air with a concentration of particles above the legally imposed maximum limits, may present inhalation hazards.

Repeated or prolonged contact with some coating layers and protective oil may cause skin problems.

4. FIRST AID MEASURES

In the event of injuries to skin or eyes seek medical attention. In the event of over-exposure to dust/fume/smoke remove person to fresh air and if symptoms persist seek medical attention.

First issue: July 2002

5. FIRE FIGHTING MEASURE

The product is not combustible.

6. ACCIDENTAL RELEASE MEASURES

Galvanised steel products are stable, no special measures are to be taken.

7. HANDLING AND STORAGE

Special technical measures involved for handling these products: see item 8. Normal precautions should be taken to avoid injuries possibly by sharp edges or by release of tension when breaking open the straps.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

In the processing of galvanised steel products, exposure to dust/fume/smoke must be kept below legally imposed limits. Locally dust/fume/smoke extraction and/or adequate air ventilation at the workplace should be provided. If ventilation is inadequate during processing, appropriate approved respiratory protection should be provided to the workers.

Wear appropriate protective clothing and gloves for handling sheets or pieces.

Eye protection is recommended.

Approved occupational exposure standards

| Element | Einecs Nr. | CAS Nr. | T.L.V./T.W.A. (mg/m ³) | T.L.V./S.T.E.L. (mg/m ³) |
|---|------------|-----------|---------------------------------------|---|
| Iron oxide (as Fe) as Fe ₂ O ₃ | 215-168-2 | 1309-37-1 | 5.0 | 10.0 |
| Zinc oxide (fume) | 215-222-5 | 1314-13-2 | 5.0 | 10.0 |

Keeping the exposures of total inhalable dust below 5 mg/m³ should normally be sufficient. However by process where the phosphate and/or chromate layers are solicited, it is advisable to control the nickel and the chrome VI concentrations in the air at the workplace.

- T.L.V./T.W.A. = Threshold Limit Value/Time Weighted Average

- T.L.V./S.T.E.L. = Threshold Limit Value/Short Time Exposure Limit

Source: HSE Guidance Notes EH40/96

9. PHYSICAL AND CHEMICAL PROPERTIES

| Properties | Steel substrate | Zinc layer |
|-------------------------------|-----------------|---------------|
| appearance | solid | solid |
| colour | metallic grey | metallic grey |
| odour | odourless | odourless |
| melting point °C | 1500-1550 | 417 |
| density (kg/dm ³) | 7.85 | 6.9 - 7.14 |
| solubility: alkalies | insoluble | soluble |
| acid | soluble | soluble |

10. STABILITY AND REACTIVITY

Galvanised steel products are stable under normal ambient atmosphere conditions. May react with alkalis and acids

11. TOXICOLOGICAL DATA

Zinc oxide fume may cause metal fume fever. Most cases are recovery within 24 hours. Repeated or prolonged over-exposure to dust/fume/smoke may cause lung disease and affect pulmonary function.

Repeated or prolonged contact to phosphate, chromate and protective oil layers may cause skin irritation and rarely, in susceptible cases, might lead to dermatitis.

12. ECOLOGICAL DATA

No known harmful effects.

13. DISPOSAL CONSIDERATIONS

From a security point of view a long storage time does not change the steel properties. Surplus of material may be used. Scraps are entirely recyclable.

14. TRANSPORT DATA

No special precautions.

15. REGULATORY REFERENCES

Chemicals regulation 1993 EEC Directive 67/548/EEC. There are no exposure limits for galvanised steel products. Limits are applicable for some constituent elements and several of their compounds (see item 8). These elements may be contained in dust/fume/smoke produced during processing of the products..

Safety phrases

S 22: do not breathe the dust

S 36: wear suitable protective clothing

16. GUIDANCE DOCUMENT REFERENCES

- Dangerous Properties of Industrial Materials, Seventh Edition, Volume III, N.IRVING SAX and RICHARD J.LEWIS SR. , Van Nostrand Reinhold, New York.
- Encyclopedia of Occupational Health and Safety, Third edition.
- Toxicologie Industrielle et Intoxications Professionnelles, troisième édition, Robert Lauwereys, Masson, Paris, 1990.
- Deutsche Forschungsgemeinschaft, Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area, Report N° 30 .

Declaration

The information given in this material safety data sheet is based on the present level of our knowledge and experience but no warranties of any kind are made as to its accuracy. It describes the products with respect to safety requirements. This Material Safety Data Sheet is intended to be used solely for the purpose of satisfying informational requests made pursuant to that requirement. It is not intended as a confirmation of product properties and does not constitute a legal contractual relationship, nor should it be used as the basis for ordering these products.



Adhesive for laminating PVC-Materials
with steel, ZE-and aluminium sheets

Especially suitable for coil-coating process

TECHNICAL DATA

| | | |
|---------------------------|---|--|
| Base | Polyester | |
| Density | | |
| -Wet | 1.07 g/cm ³ | KÖ-Method No. 10121 |
| -Solid | 1.26 g/cm ³ | KÖ-Method No. 10124 |
| - Solvent | 0.97 g/cm ³ | KÖ-Method No. 10125 |
| Solid Content | | |
| - By Weight | 35.5 % | KÖ-Method No. 10131 |
| - By Volume | 30.3 % | |
| Viscosity | 80 Se | KO-Method No. 10115/DIN4 |
| Solvent- mixture | 44.5% MPA, 20% DBE | |
| Productiveness | 284 m ² /KG at 1µm | |
| Thickness | 8µm _{dry} / 26µm _{wet} / 28g/m ² | |
| Laminating temperature | 224 °C, 60 sec (PMT) | Due to variation in working conditions and substrates we recommend trials are conducted for your intended application. |

Processing

Preparation

Adhesive has to be stirred before use !

The surfaces must be dry, clean and free from dust or grease. The surfaces must be prepared to allow a secure adhesion. This includes possibly a mechanical and / or chemical pretreatment.

- Fatra FF800 and FF801 — a 300 g·m² non-woven, geotextile polyester fleece for use as separation or protection layer.

1.3 Other items or components which may be used with the systems but which are outside the scope of this Certificate, are:

- Membrane coated Gutter System - Factory laminated steel profiles finished with Fatra 333L textured, embossed membrane to give a continuous roof line and slip-resistant finish
- Fatra FF850 and FF851 Preformed PVC Corners — for use as internal and external corners
- Fatra FP range of membrane coated galvanized steel profiles — for parapets, edge details and upstands
- Fatra FF812 Walkway Membrane — a slip-resistant, textured walkway membrane in 650 mm widths
- Fatra FF816 Self-adhesive Vapour Barrier — a self-adhesive vapour control layer consisting of a bituminous adhesive, a layer of glass fibre and a polyester-reinforced aluminium film
- Fatra FF817 Vapour Barrier Primer — a bituminous solution for preparation of substrates prior to the installation of bituminous vapour control layers
- Fatra FF818 Polyethylene Vapour Control Layer — 600 gauge polyethylene membrane
- Fatra FF819 Torch-on Vapour Barrier — a glass-reinforced, SBS bitumen vapour control layer, installed by torch bonding
- Fatra FF865 Slab Support Feet — for use with paving slabs in loose-laid applications
- Fatra FF914 Stafol Protection Membrane — a 0.5 mm thick, unreinforced PVC membrane designed for use as a protective/sacrificial layer in Fatra ballasted or sedum roof applications
- Fatra FO Rainwater Outlets — a range of vertical and horizontal outlets compatible with Fatra PVC membranes
- Fatra FF814 PVC Standing Seam Profile — triangular PVC profile designed to be applied to Fatra membrane covered roofs to reproduce the appearance of a traditional metal roof.

2 Manufacture

2.1 The membranes are manufactured by a two-pass extrusion coating process of the polyester reinforcement.

2.2 As part of the assessment and ongoing surveillance of product quality, the BBA has:

- agreed with the manufacturer the quality control procedures and product testing to be undertaken
- assessed and agreed the quality control operated over batches of incoming materials
- monitored the production process and verified that it is in accordance with the documented process
- evaluated the process for management of nonconformities
- checked that equipment has been properly tested and calibrated
- undertaken to carry out the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

2.3 The management system of Fatra a.s. has been assessed and registered as meeting the requirements of ČSN EN ISO 9001 : 2016 and ČSN EN ISO 14001 : 2016 by Bureau Veritas (Certificates CZ 006993-1 and CZ 006994-1 respectively).

3 Delivery and site handling

3.1 The membranes are delivered to site in rolls wrapped in paper, bearing the Certificate holder's name, batch number, product name, surface colour and the BBA logo incorporating the number of this Certificate.

3.2 Rolls should be stored horizontally on a clean, dry, level surface and under cover until required.

3.3 The Certificate holder has taken the responsibility of classifying and labelling the systems under the *CLP Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures*. Users must refer to the relevant Safety Data Sheet(s).

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Fatrafol FF807 and Fatrafol FF807/V Roof Covering Systems.